



Div of Waste Management
and Radiation Control

JAN 18 2017

DRC-2017-000583

Energy Fuels Resources (USA) Inc.
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January 16, 2017

Sent VIA OVERNIGHT DELIVERY

Mr. Scott Anderson
Director
Division of Waste Management and Radiation Control
Utah Department of Environmental Quality
195 North 1950 West
P.O. Box 144880
Salt Lake City, UT 84114-4820

Re: Transmittal of Revised Groundwater Compliance Limits for manganese and cadmium in MW-03A at the White Mesa Uranium Mill, Groundwater Discharge Permit No. UGW370004

Dear Mr. Anderson:

Pursuant to a request from the Division of Waste Management and Radiation Control ("DWMRC"), Energy Fuels Resources (USA) Inc. ("EFRI") has recalculated the Groundwater Compliance Limits ("GWCLs") for manganese and cadmium in MW-03A. The attached memorandum from Intera follows the approved flowsheet and provides the resultant, lower GWCLs.

If you should have any questions regarding this report please contact me.

Yours very truly,

ENERGY FUELS RESOURCES (USA) INC.
Kathy Weinel
Quality Assurance Manager

CC: David C. Frydenlund
Harold R. Roberts
David E. Turk
Logan Shumway
Scott Bakken

TECHNICAL MEMORANDUM

DATE: January 16, 2017

FROM: Angela Persico, INTERA, Incorporated

TO: Kathy Weinel, Energy Fuels Resources, Inc.

SUBJECT: Revised GWCLs for Cadmium and Manganese in MW-03A

The Division of Waste Management and Radiation Control (DWMRC) has requested an update to the groundwater compliance limits (GWCLs) in MW-3A for cadmium and manganese. The request for revision of these GWCLs is due to the limited data set when background was established for this well. After receiving additional data, it is apparent that GWCLs were set at concentrations greater than current conditions in the well.

The flowsheet process was used for complete data sets for both cadmium and manganese in MW-03A, and is summarized in **Table 1**. Extreme outliers, as identified in the box and whiskers plots (**Figure 1 and Figure 2**), were removed from further analysis and calculation of GWCLs.

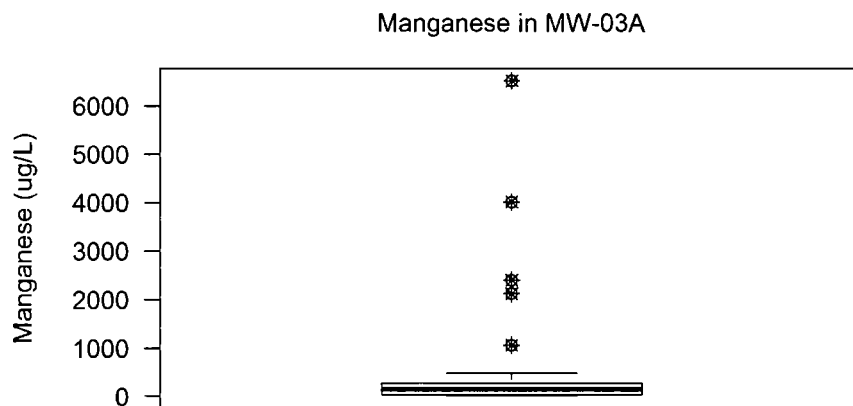


Figure 1. Box and whisker plot for manganese in MW-03A showing extreme outliers removed from further analysis.

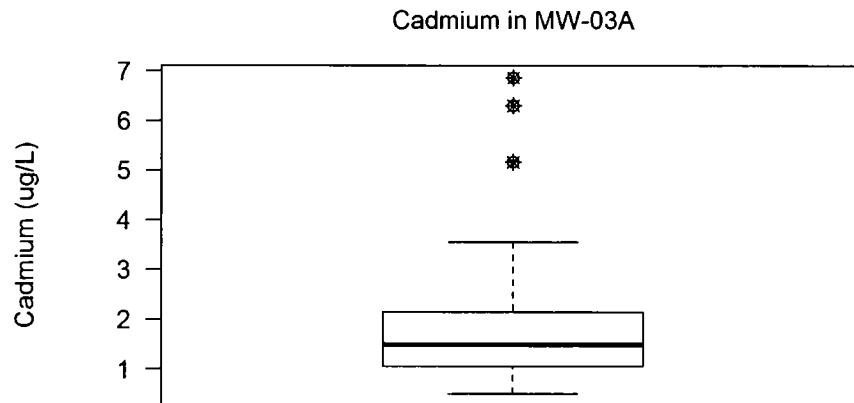


Figure 2. Box and whisker plot for cadmium in MW-03A showing extreme outliers removed from further analysis.

Table 1. Flowsheet Summary and Proposed Revised GWCLs

Parameters	Cadmium (ug/L)	Manganese (ug/L)
N	27	25
Percent Non-detect	11%	0%
Mean	1.50	135.66
Standard Deviation	0.75	123.79
Minimum	0.5	15.1
Maximum	3.55	480
Distribution	Not normal/lognormal	Normal/lognormal
Trend	No Trend	Decreasing
GWQS	5	800
Highest Historical Value	3.55	480
Mean + 2Sigma	3.00	383.24
Fractional Approach	2.5	400
Existing GWCL	8.3	6287
Proposed Revised GWCL	3.55	383